FIG. 1

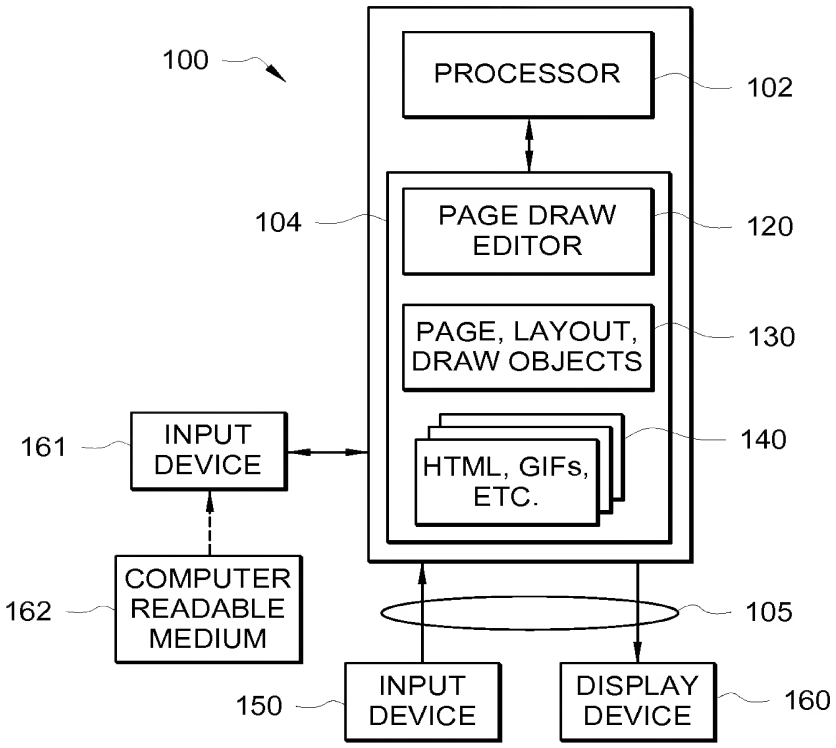

100
PROCESSOR
102
104
PAGE DRAW EDITOR
120
PAGE, LAYOUT, DRAW OBJECTS
130
161
INPUT DEVICE
HTML, GIFs, ETC.
140
COMPUTER READABLE MEDIUM
162
105
150
INPUT DEVICE
DISPLAY DEVICE
160

FIG. 2

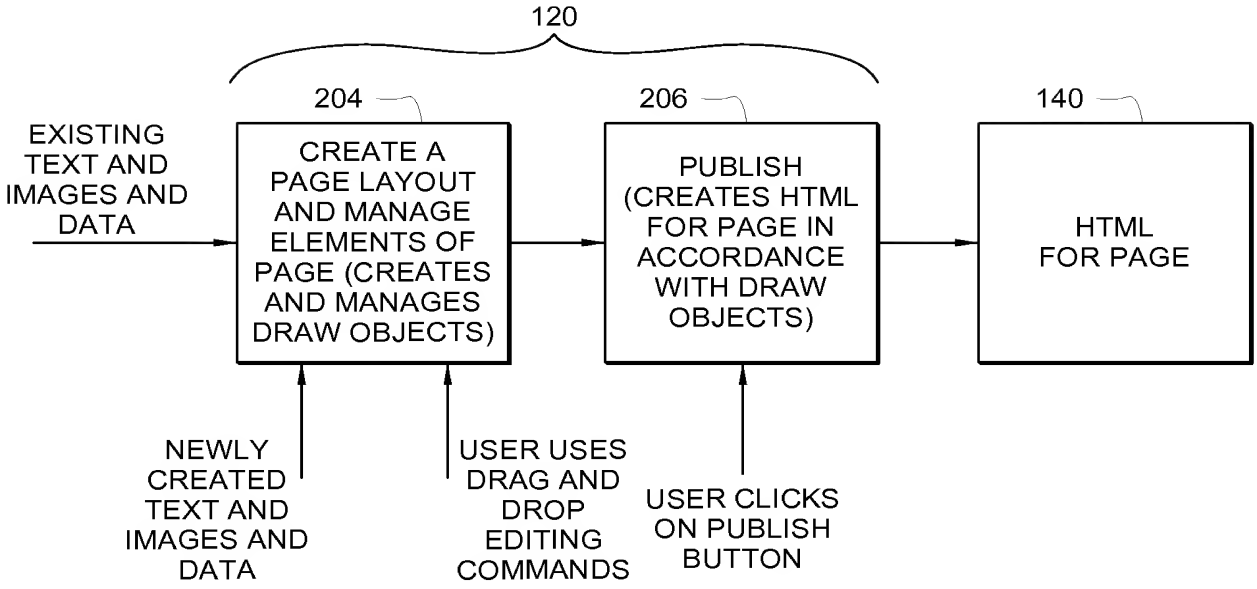

120
204
206
140
EXISTING TEXT AND IMAGES AND DATA
CREATE A PAGE LAYOUT AND MANAGE ELEMENTS OF PAGE (CREATES AND MANAGES DRAW OBJECTS)
PUBLISH (CREATES HTML FOR PAGE IN ACCORDANCE WITH DRAW OBJECTS)
HTML FOR PAGE
NEWLY CREATED TEXT AND IMAGES AND DATA
USER USES DRAG AND DROP EDITING COMMANDS
USER CLICKS ON PUBLISH BUTTON

FIG. 3

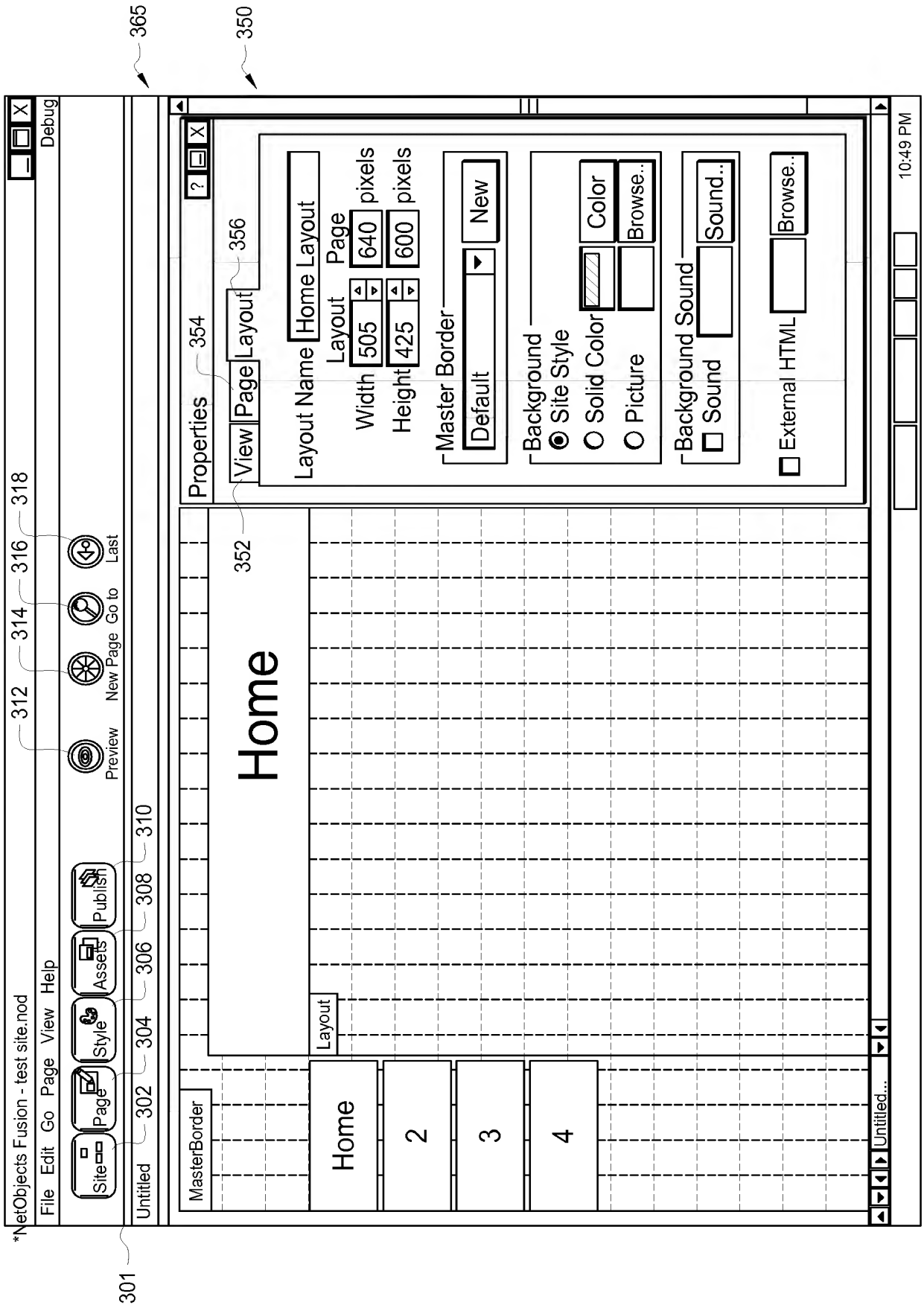

365
350
301
*NetObjects Fusion - test site.nod
File Edit Go Page View Help
Debug
Site
Page
Style
Assets
Publish
Preview
New Page
Go to
Last
312
314
316
318
Untitled
302
304
306
308
310
MasterBorder
Home
2
3
4
Layout
Home
352
Properties
354
View
Page
Layout
356
Layout Name
Home Layout
Layout
Page
Width
505
640
pixels
Height
425
600
pixels
Master Border
Default
New
Background
Site Style
Solid Color
Picture
Color
Browse..
Background Sound
Sound
Sound..
External HTML
Browse..
Untitled...
10:49 PM

FIG. 4A

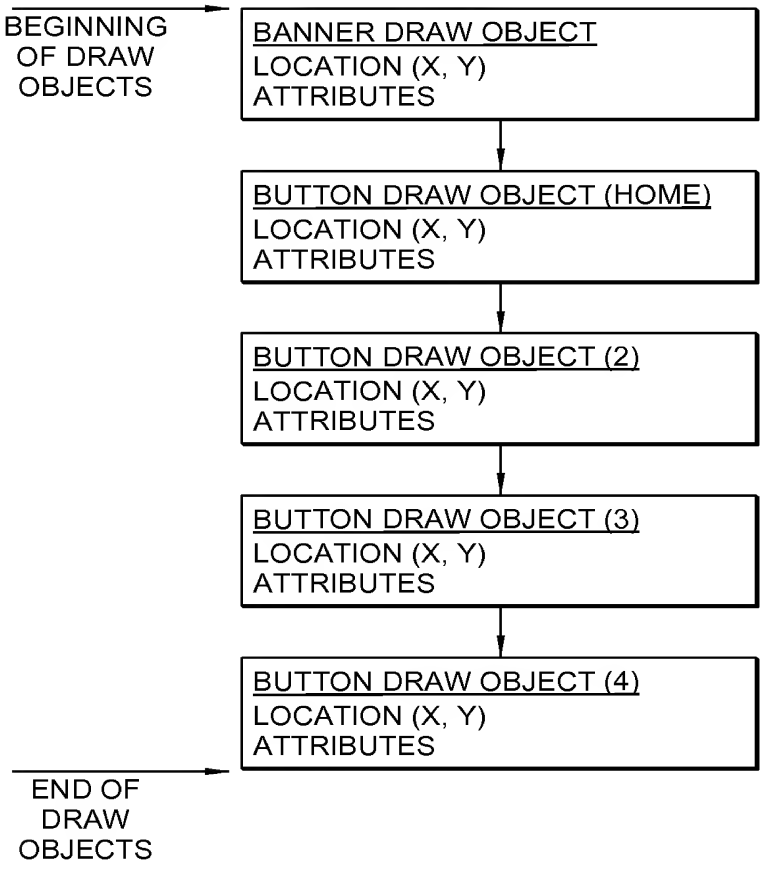

BEGINNING OF DRAW OBJECTS
BANNER DRAW OBJECT
LOCATION (X, Y)
ATTRIBUTES
BUTTON DRAW OBJECT (HOME)
LOCATION (X, Y)
ATTRIBUTES
BUTTON DRAW OBJECT (2)
LOCATION (X, Y)
ATTRIBUTES
BUTTON DRAW OBJECT (3)
LOCATION (X, Y)
ATTRIBUTES
BUTTON DRAW OBJECT (4)
LOCATION (X, Y)
ATTRIBUTES
END OF DRAW OBJECTS

FIG. 4B

DRAW OBJECT FOR TEXT

FIG. 5

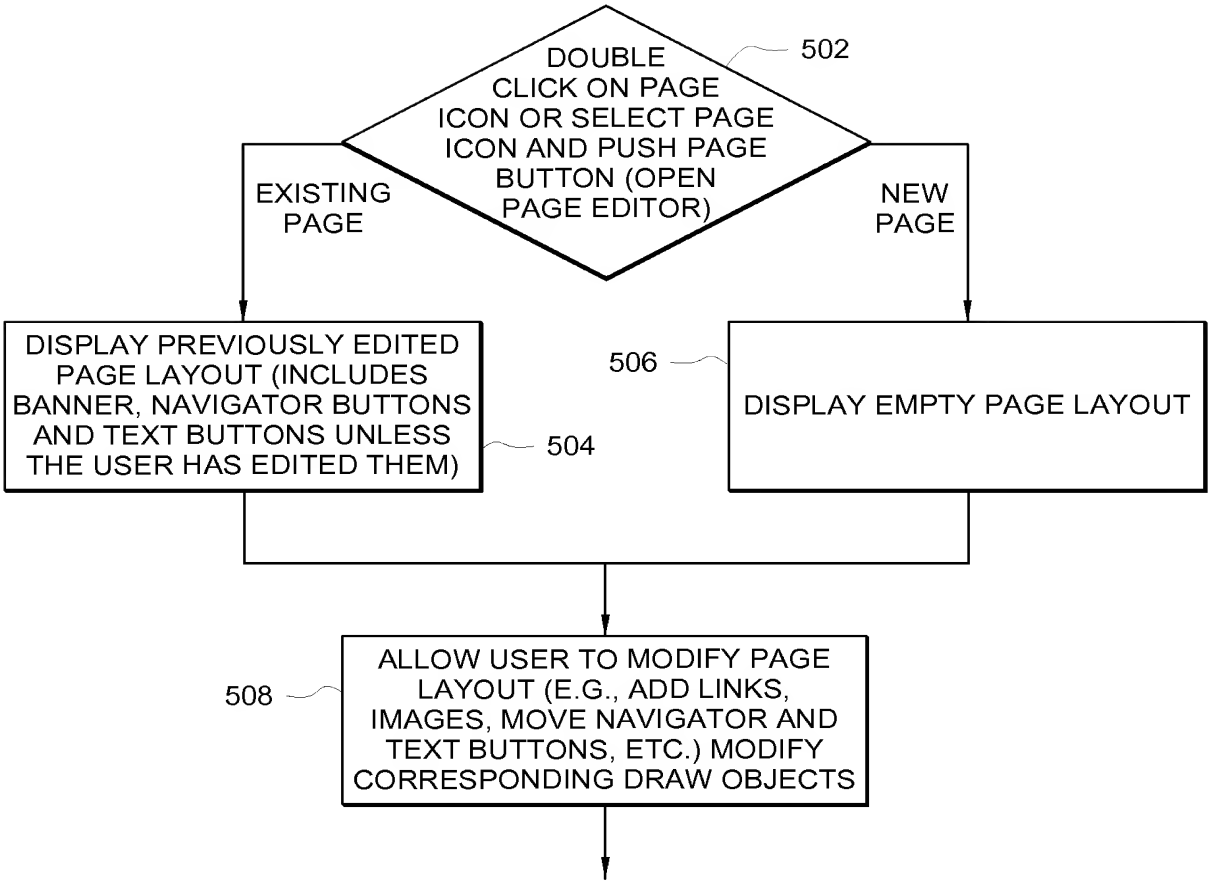

DOUBLE CLICK ON PAGE ICON OR SELECT PAGE ICON AND PUSH PAGE BUTTON (OPEN PAGE EDITOR)
502
EXISTING PAGE
NEW PAGE
DISPLAY PREVIOUSLY EDITED PAGE LAYOUT (INCLUDES BANNER, NAVIGATOR BUTTONS AND TEXT BUTTONS UNLESS THE USER HAS EDITED THEM)
504
506
DISPLAY EMPTY PAGE LAYOUT
508
ALLOW USER TO MODIFY PAGE LAYOUT (E.G., ADD LINKS, IMAGES, MOVE NAVIGATOR AND TEXT BUTTONS, ETC.) MODIFY CORRESPONDING DRAW OBJECTS

FIG. 6A

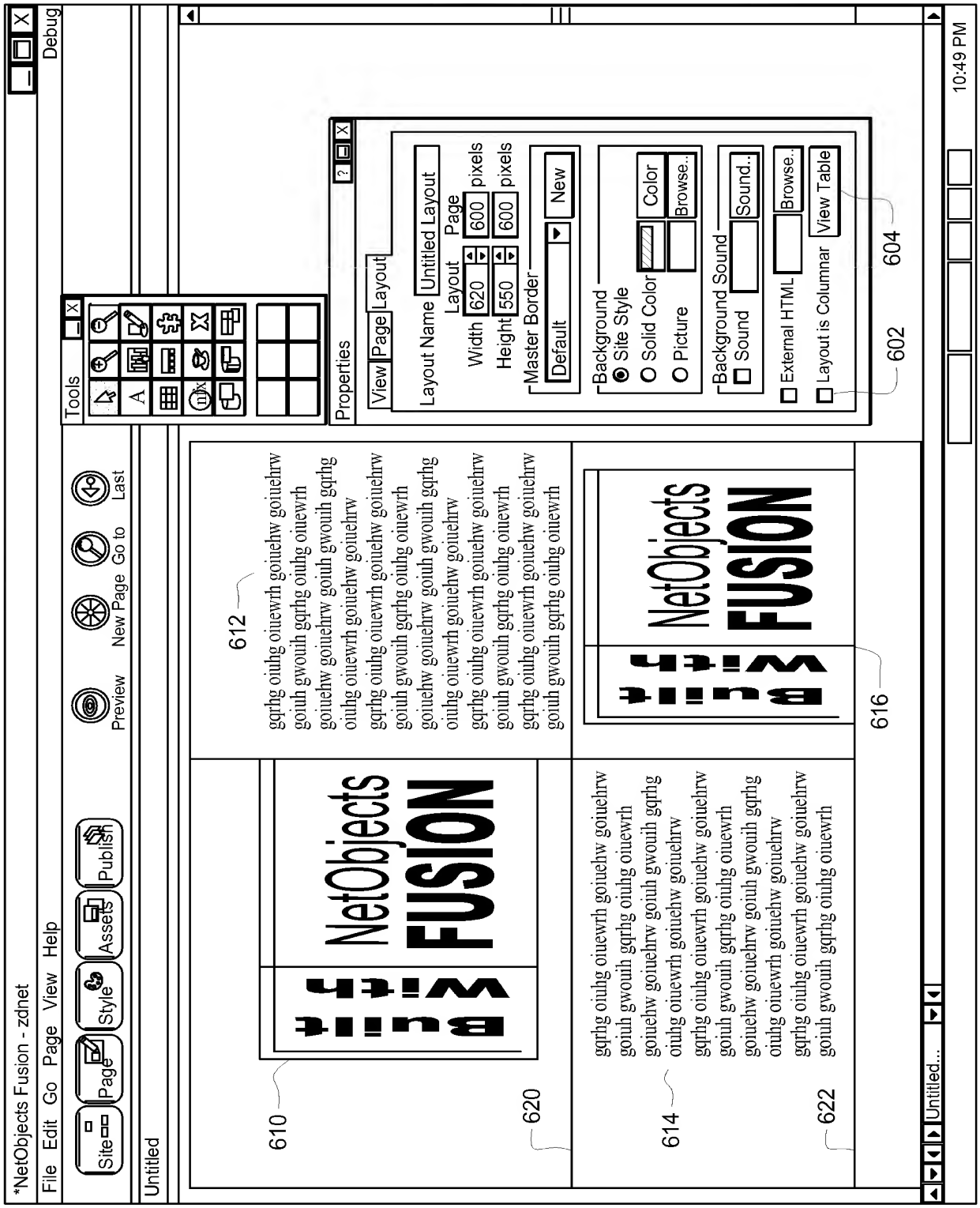

*NetObjects Fusion - zdnet
File Edit Go Page View Help
Site
Page
Style
Assets
Publish
Preview
New Page
Go to
Last
Debug
Tools
Untitled
Properties
View
Page
Layout
Layout Name
Untitled Layout
Layout
Page
Width
620
600
pixels
Height
550
600
pixels
Master Border
Default
New
Background
Site Style
Solid Color
Picture
Color
Browse..
Background Sound
Sound
Sound..
External HTML
Browse..
Layout is Columnar
View Table
602
604
612
610
620
614
622
616
With NetObjects FUSION
gqrhg oiuhg oiuewrh goiuehw goiuehrw
goiuh gwouih gqrhg oiuhg oiuewrh
Untitled...
10:49 PM

FIG. 6B

612'
gqrhg oiuhg oiuewrh
goiuehw goiuehrw goiuh
gwouih gqrhg oiuhg
oiuewrh goiuehw goiuehrw
goiuh gwouih gqrhg
oiuhg oiuewrh goiuehw
goiuehrw gqrhg oiuhg
oiuewrh goiuehw goiuehrw
goiuh gwouih gqrhg
oiuhg oiuewrh goiuehw
goiuehrw goiuh gwouih
gqrhg oiuhg oiuewrh
goiuehw goiuehrw gqrhg
oiuhg oiuewrh goiuehw
goiuehrw goiuh gwouih
gqrhg oiuhg oiuewrh
gqrhg oiuhg oiuewrh
oiuewrh
616'
NetObjects
610'
Built with
NetObjects
FUSION
gqrhg oiuhg oiuewrh
goiuehw goiuehrw goiuh
gwouih gqrhg oiuhg oiuewrh
goiuehw goiuehrw goiuh
614'
Untitled...
10:49 PM

FIG. 7A

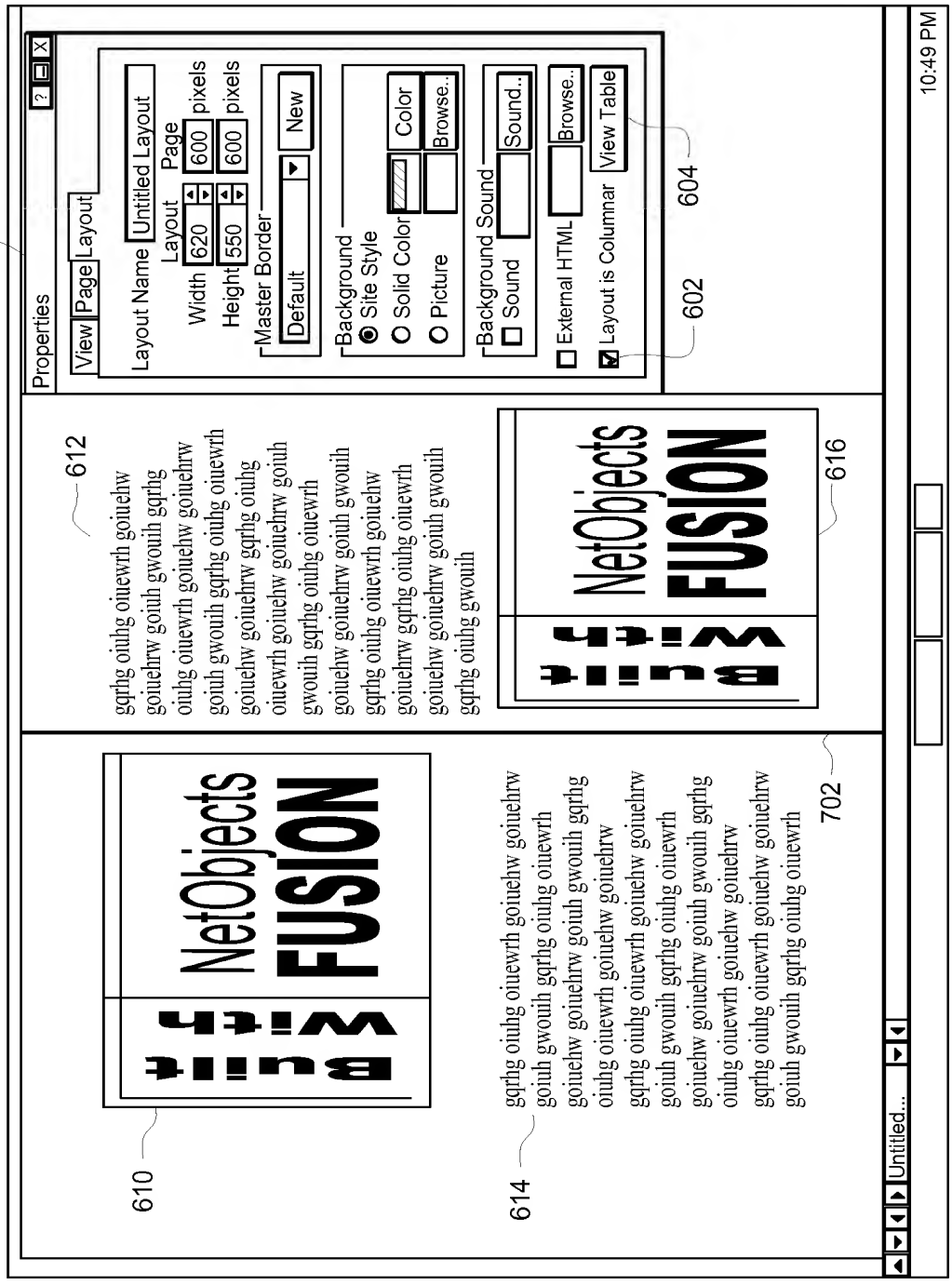

601
Properties
View
Page
Layout
Layout Name
Untitled Layout
Page Layout
Width
620
Height
550
pixels
600
600
pixels
Master Border
Default
New
Background
Site Style
Solid Color
Picture
Color
Browse..
Background Sound
Sound
Sound..
External HTML
Browse..
Layout is Columnar
View Table
602
604
612
ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg oiuewrh goiuehw goiuehrw ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg gwouih
NetObjects FUSION
610
NetObjects FUSION
616
614
ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih ggrhg oiuhg oiuewrh
702
Untitled...
10:49 PM

FIG. 7B

610'
NetObjects
FUSION
612'
gqrhg oiuhg oiuewrh
goiuehw goiuehrw goiuh
gwouih gqrhg oiuhg
oiuewrh goiuehw goiuehrw
goiuh gwouih gqrhg
oiuhg oiuewrh goiuehw
goiuehrw gqrhg oiuhg
oiuewrh goiuehw goiuehrw
goiuh gwouih gqrhg
oiuhg oiuewrh goiuehw
goiuehrw goiuh gwouih
gqrhg oiuhg oiuewrh
goiuehw goiuehrw gqrhg
oiuhg oiuewrh goiuehw
goiuehrw goiuh gwouih
gqrhg oiuhg oiuewrh
gqrhg oiuhg oiuewrh
oiuewrh
616'
NetObjects
614'
gqrhg oiuhg oiuewrh
goiuehw goiuehrw goiuh
gwouih gqrhg oiuhg oiuewrh
goiuehw goiuehrw goiuh
gwouih gqrhg oiuhg oiuewrh
goiuehw goiuehrw gqrhg
oiuhg oiuewrh goiuehw goiuehrw
goiuh gwouih gqrhg
gwouih gqrhg oiuhg oiuewrh
goiuehw goiuehrw goiuh
oiuhg oiuewrh goiuehw goiuehrw
gqrhg oiuhg oiuewrh
10:49 PM

FIG. 7C

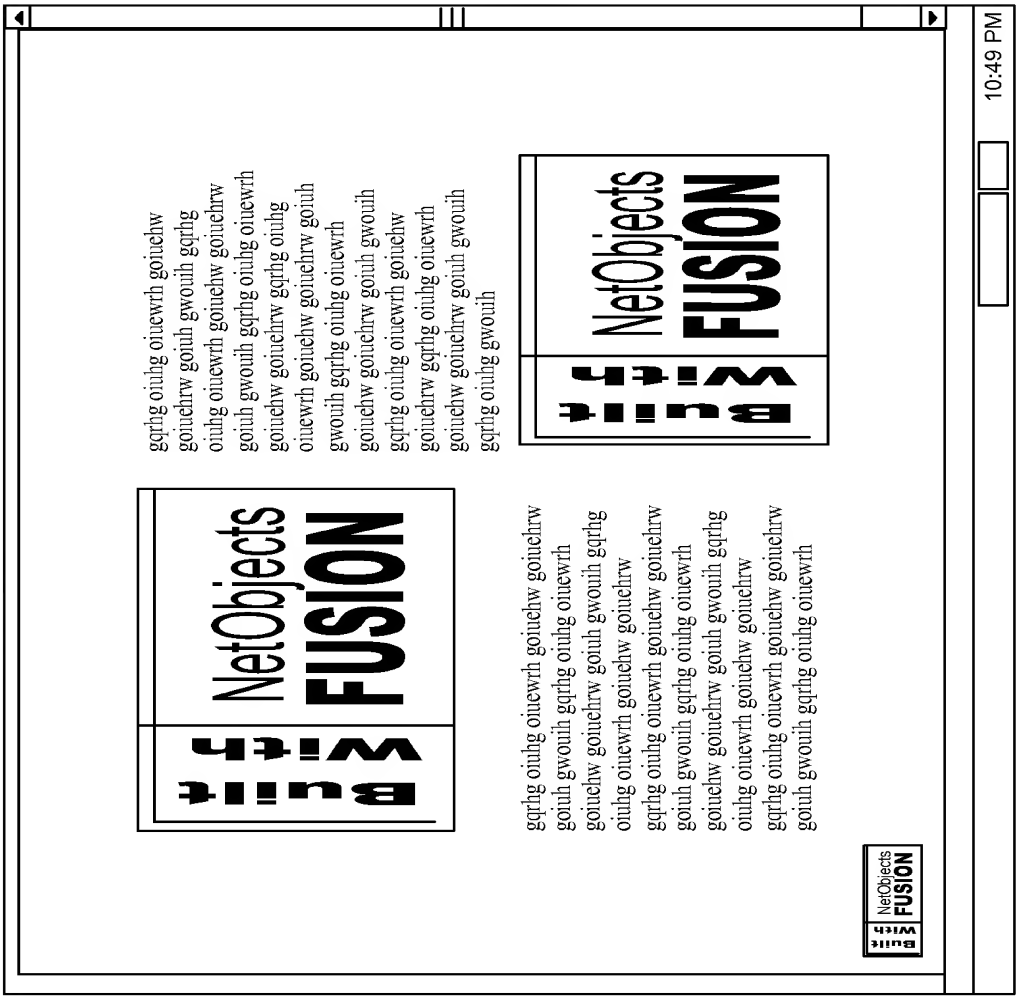

built with NetObjects FUSION
gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh goiuehw goiuehrw gqrhg oiuhg gwouih gqrhg oiuhg oiuewrh goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh goiuehrw gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih
built with NetObjects FUSION
gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh goiuehw goiuehrw goiuh gwouih gqrhg oiuhg oiuewrh
built with NetObjects FUSION
10:49 PM

FIG. 8

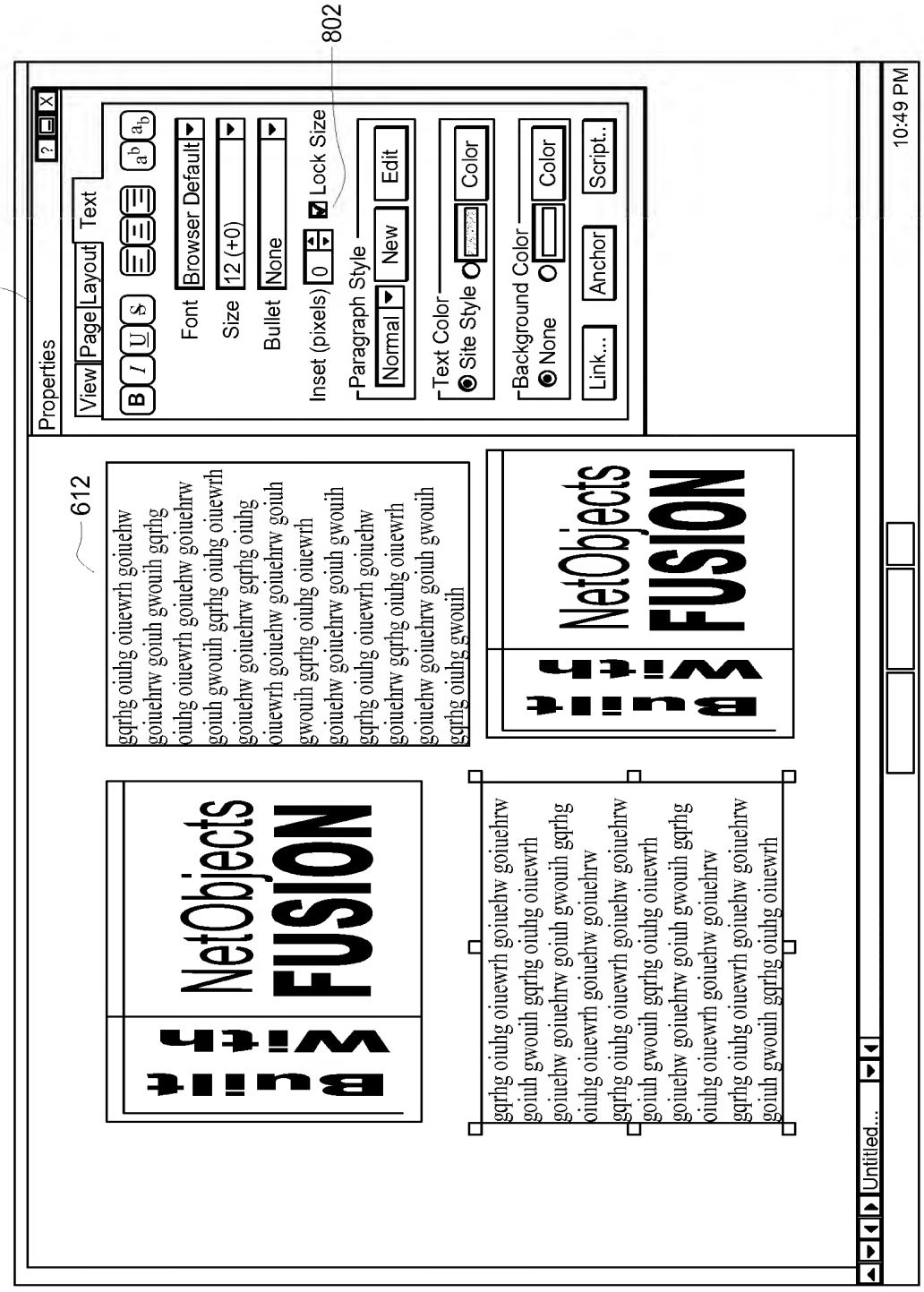

601
802
612
Properties
View
Page Layout
Text
Font
Browser Default
Size
12 (+0)
Bullet
None
Inset (pixels)
0
Lock Size
Paragraph Style
Normal
New
Edit
Text Color
Site Style
Color
Background Color
None
Color
Link...
Anchor
Script..
NetObjects FUSION
Untitled...
10:49 PM

FIG. 9

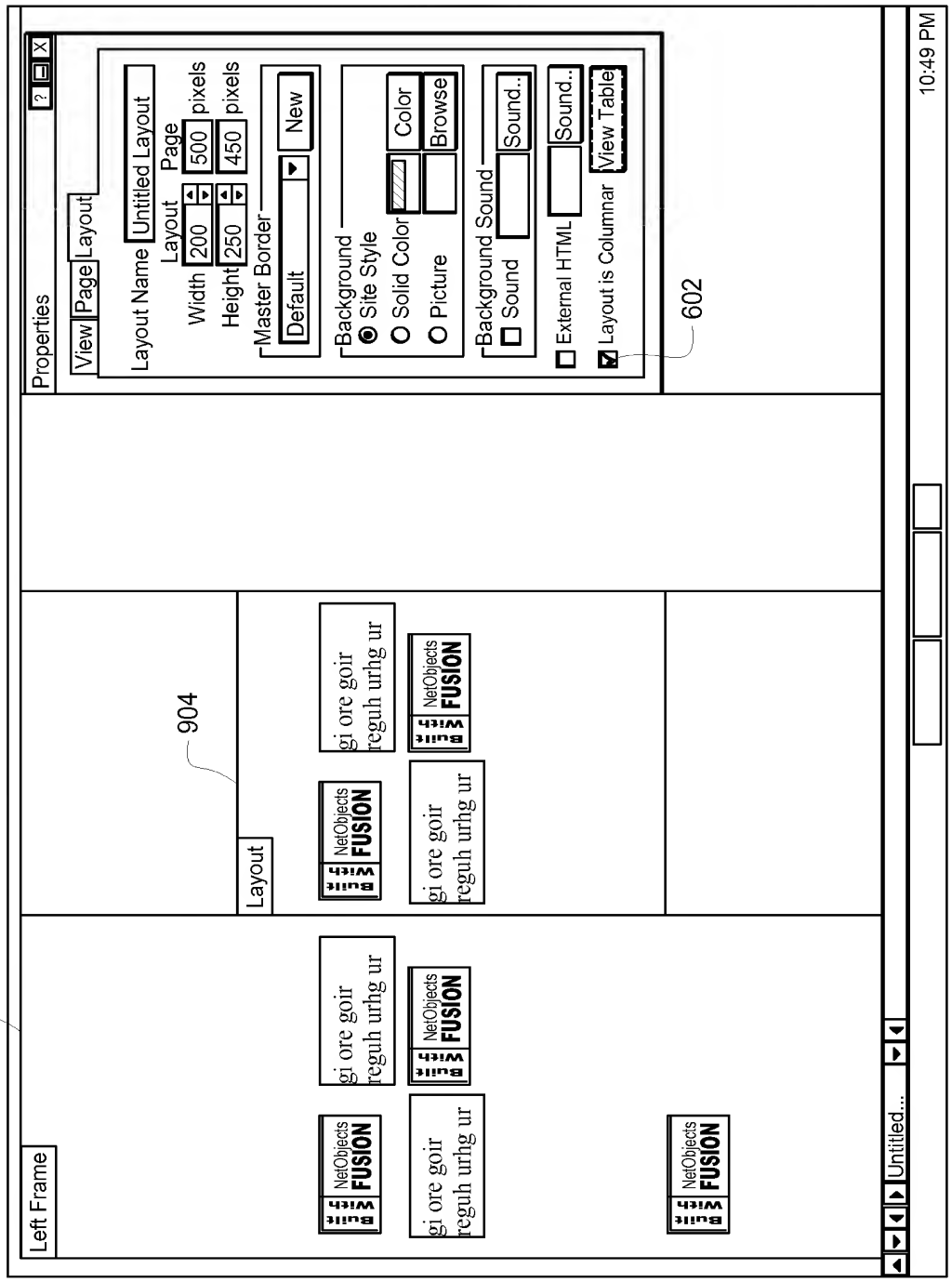

902
904
602
Left Frame
Layout
Properties
View
Page
Layout
Layout Name
Untitled Layout
Layout
Page
Width
200
500
pixels
Height
250
450
pixels
Master Border
Default
New
Background
Site Style
Solid Color
Color
Picture
Browse
Background Sound
Sound
Sound..
External HTML
Sound..
Layout is Columnar
View Table
NetObjects FUSION
gi ore goir reguh urhg ur
Untitled...
10:49 PM

FIG. 10

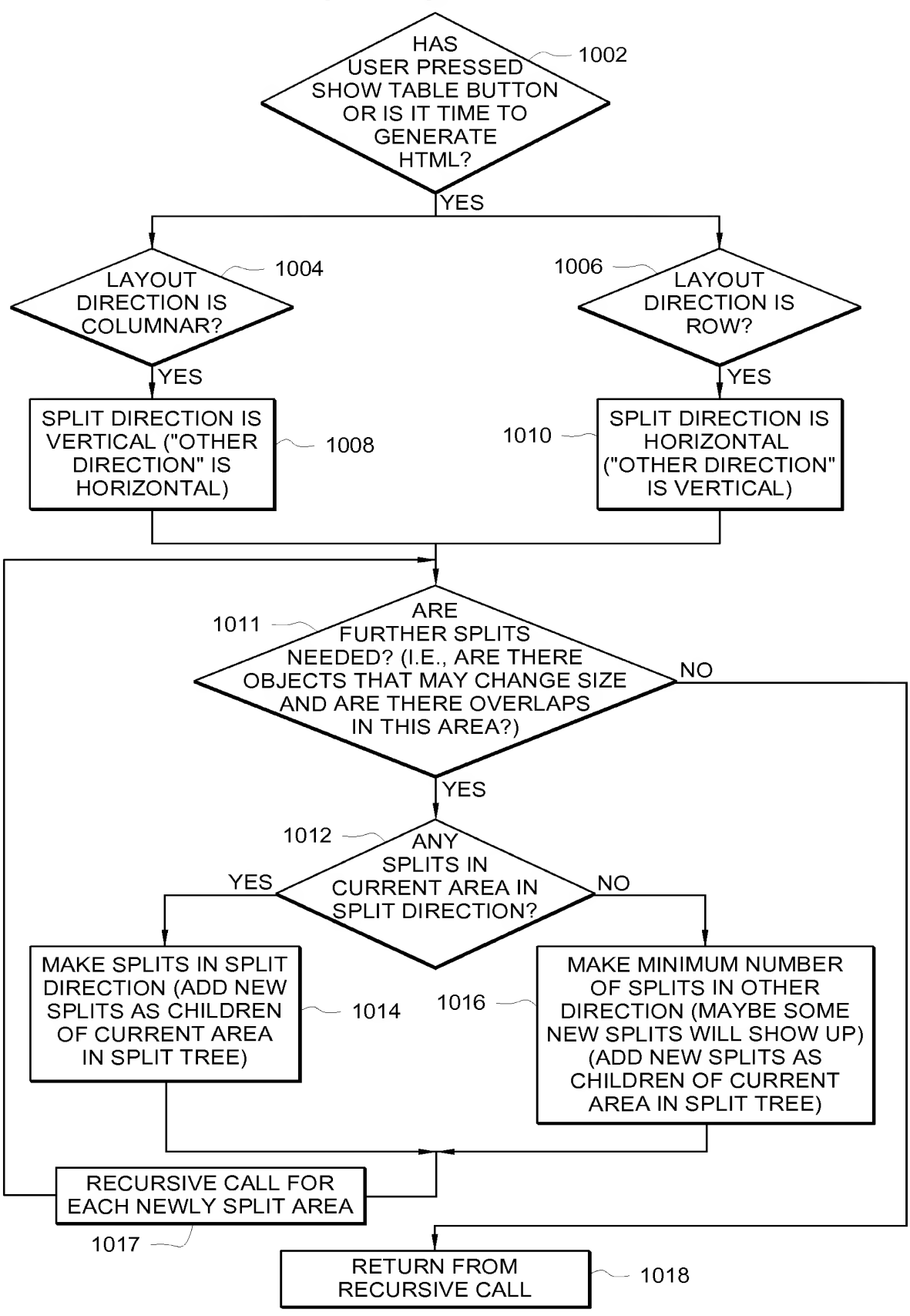

SPLIT PROCEDURE
HAS USER PRESSED SHOW TABLE BUTTON OR IS IT TIME TO GENERATE HTML?
1002
YES
LAYOUT DIRECTION IS COLUMNAR?
1004
YES
SPLIT DIRECTION IS VERTICAL ("OTHER DIRECTION" IS HORIZONTAL)
1008
1006
LAYOUT DIRECTION IS ROW?
YES
1010
SPLIT DIRECTION IS HORIZONTAL ("OTHER DIRECTION" IS VERTICAL)
1011
ARE FURTHER SPLITS NEEDED? (I.E., ARE THERE OBJECTS THAT MAY CHANGE SIZE AND ARE THERE OVERLAPS IN THIS AREA?)
NO
YES
1012
ANY SPLITS IN CURRENT AREA IN SPLIT DIRECTION?
YES
NO
MAKE SPLITS IN SPLIT DIRECTION (ADD NEW SPLITS AS CHILDREN OF CURRENT AREA IN SPLIT TREE)
1014
1016
MAKE MINIMUM NUMBER OF SPLITS IN OTHER DIRECTION (MAYBE SOME NEW SPLITS WILL SHOW UP) (ADD NEW SPLITS AS CHILDREN OF CURRENT AREA IN SPLIT TREE)
RECURSIVE CALL FOR EACH NEWLY SPLIT AREA
1017
RETURN FROM RECURSIVE CALL
1018

FIG. 11A
SPLITABLE

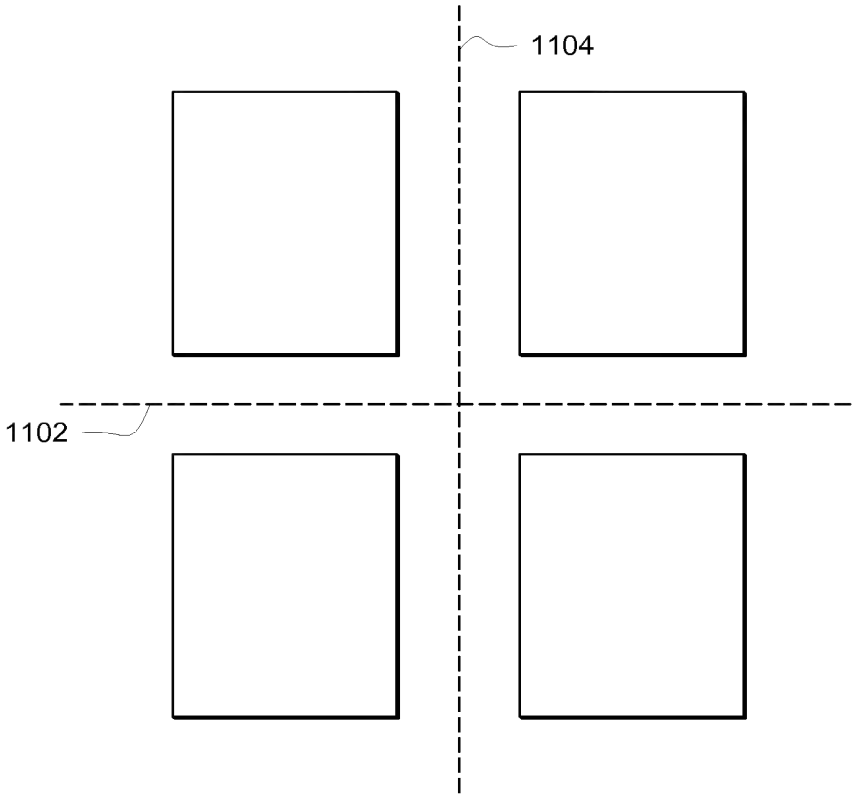


FIG. 11B
NON-SPLITABLE

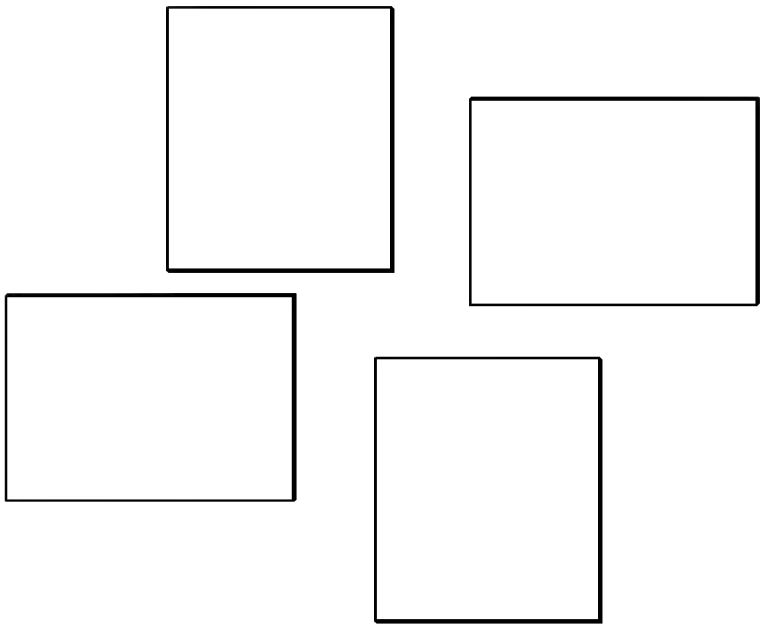


FIG. 12A

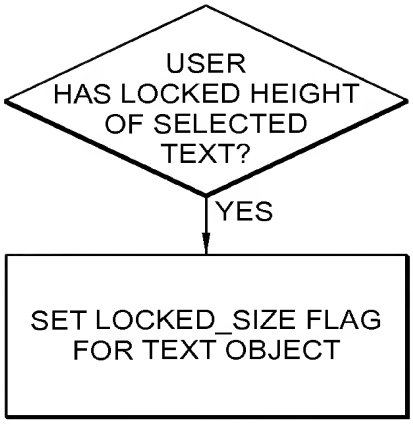


FIG. 12B

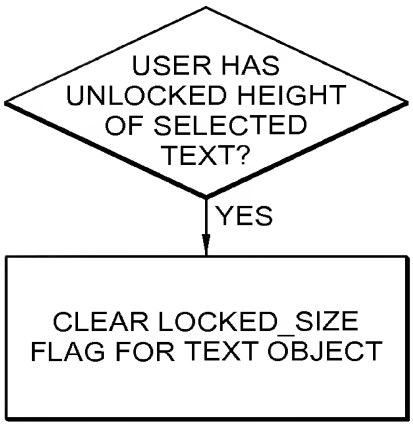


FIG. 13A

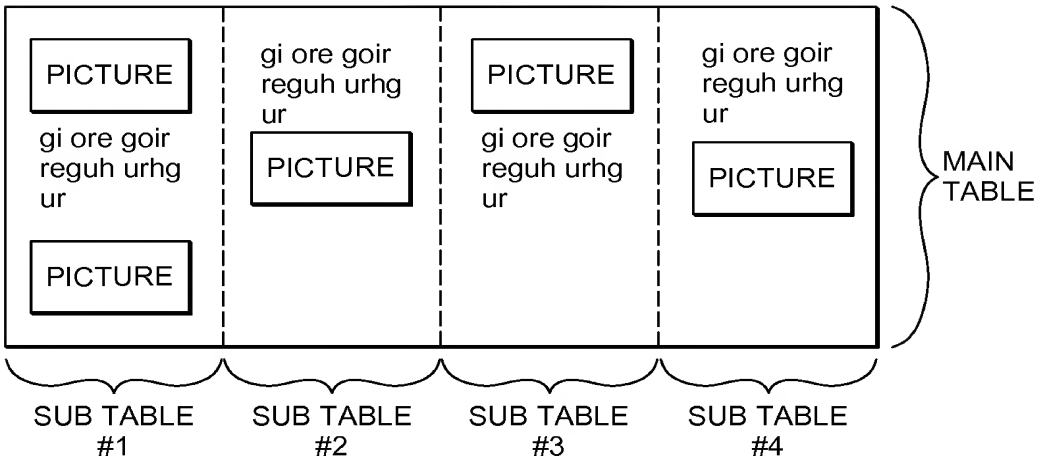


FIG. 13B

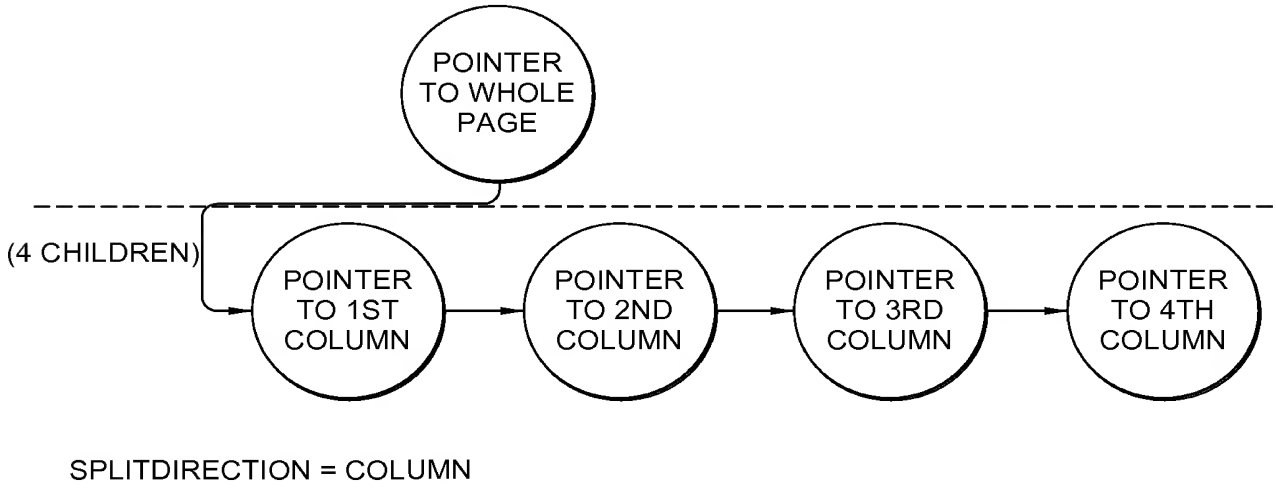


FIG. 13C

A NODE IN THE SPLIT TREE

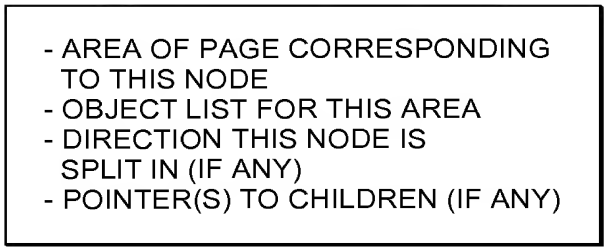


FIG. 14A

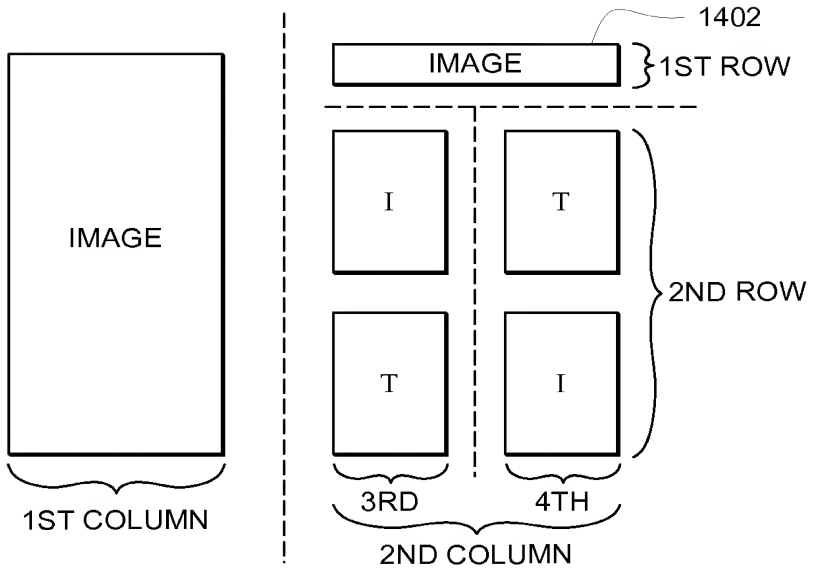


FIG. 14B

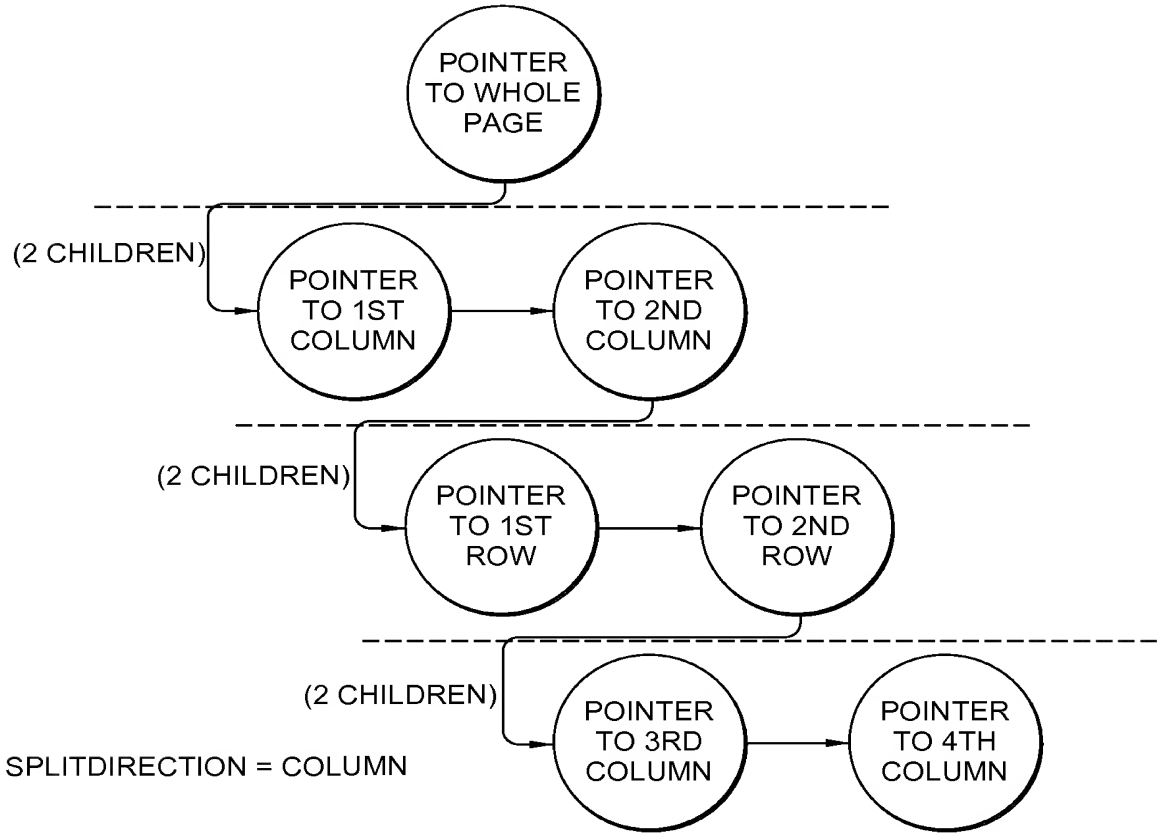


FIG. 14C

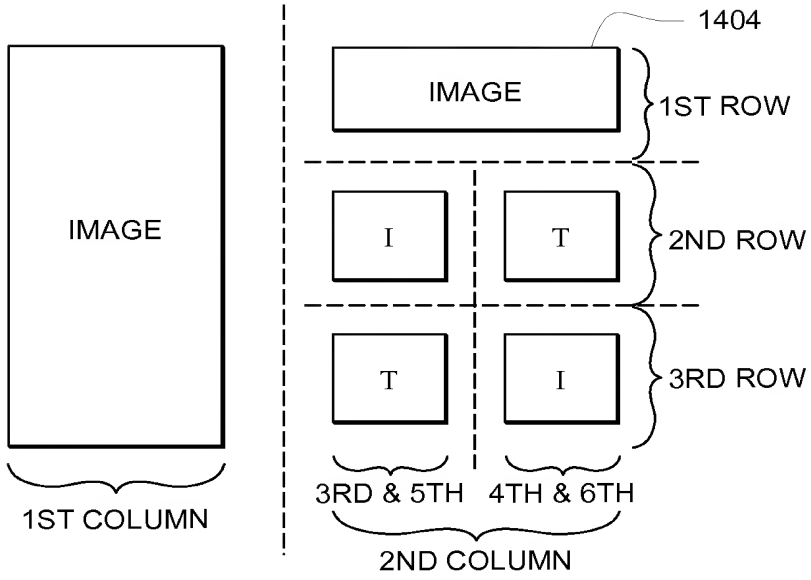


FIG. 14D

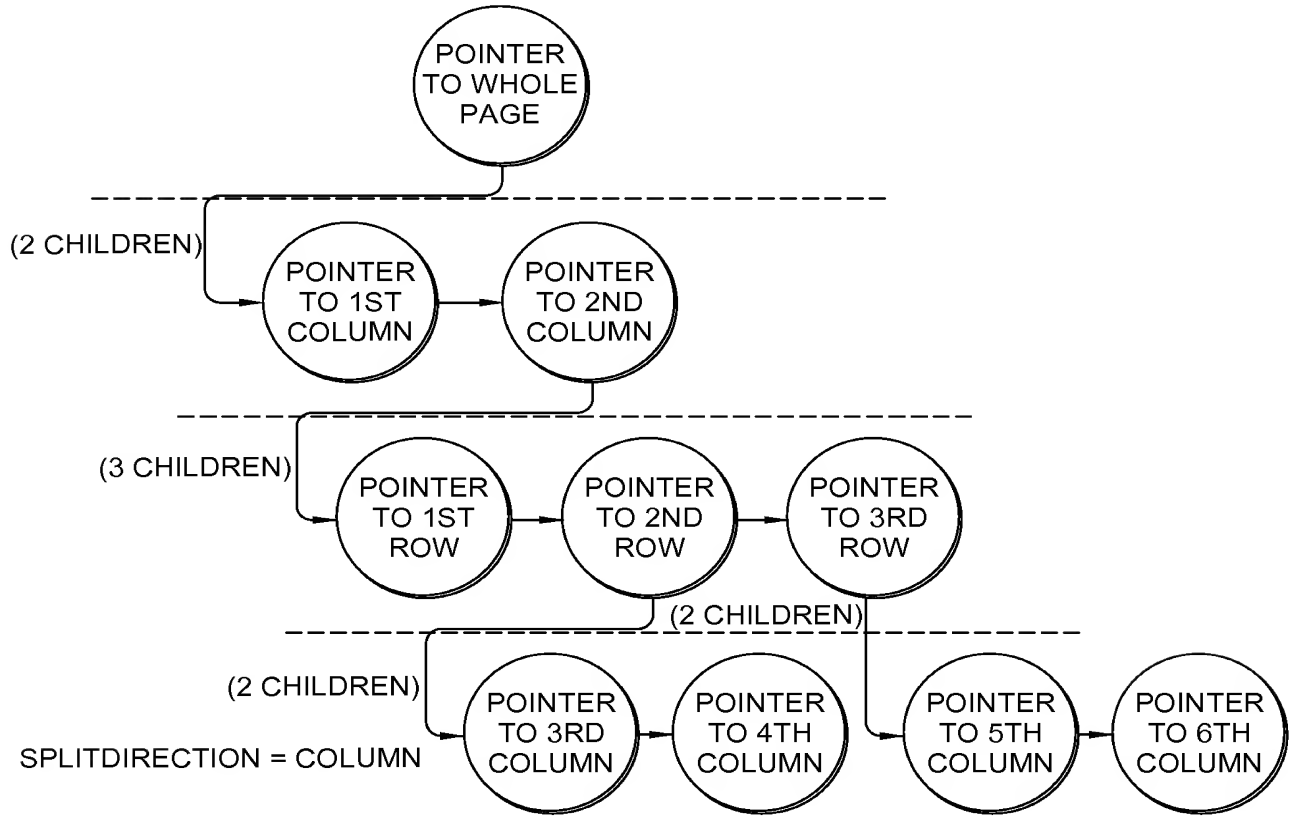


FIG. 15A

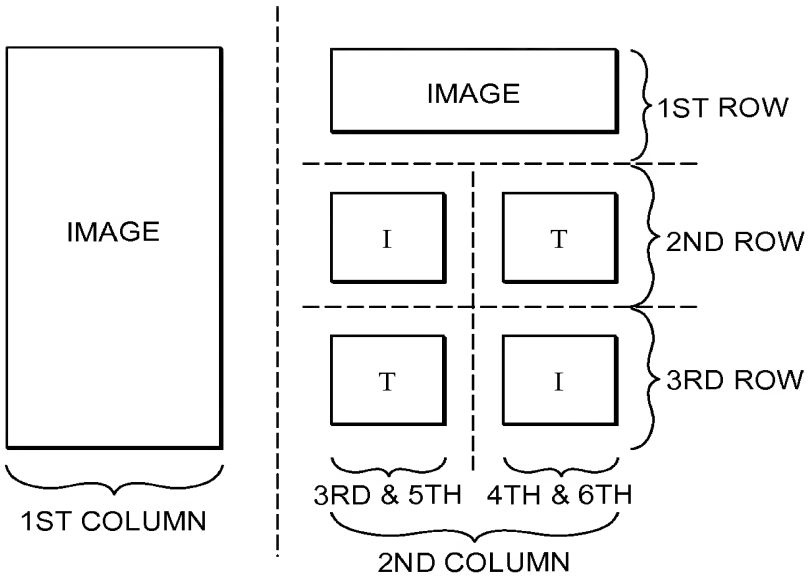


FIG. 15B

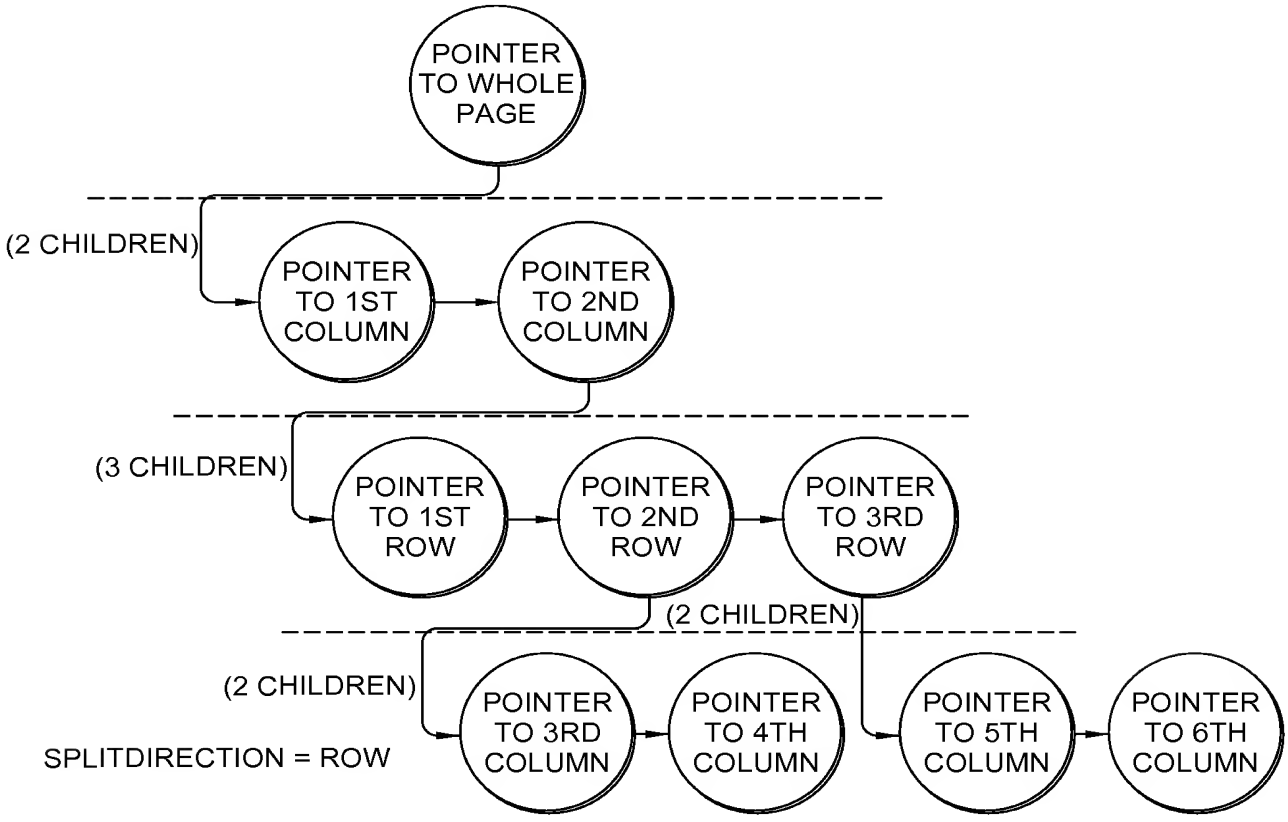


FIG. 16

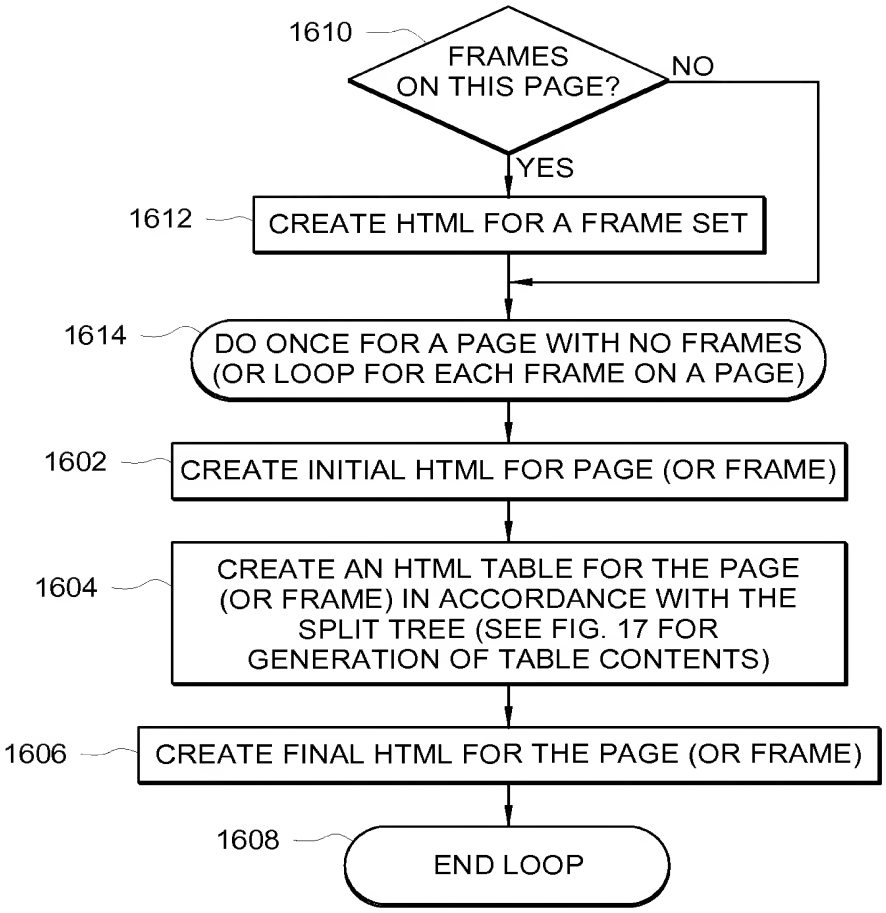

1610
FRAMES ON THIS PAGE?
NO
YES
1612
CREATE HTML FOR A FRAME SET
1614
DO ONCE FOR A PAGE WITH NO FRAMES (OR LOOP FOR EACH FRAME ON A PAGE)
1602
CREATE INITIAL HTML FOR PAGE (OR FRAME)
1604
CREATE AN HTML TABLE FOR THE PAGE (OR FRAME) IN ACCORDANCE WITH THE SPLIT TREE (SEE FIG. 17 FOR GENERATION OF TABLE CONTENTS)
1606
CREATE FINAL HTML FOR THE PAGE (OR FRAME)
1608
END LOOP

FIG. 17

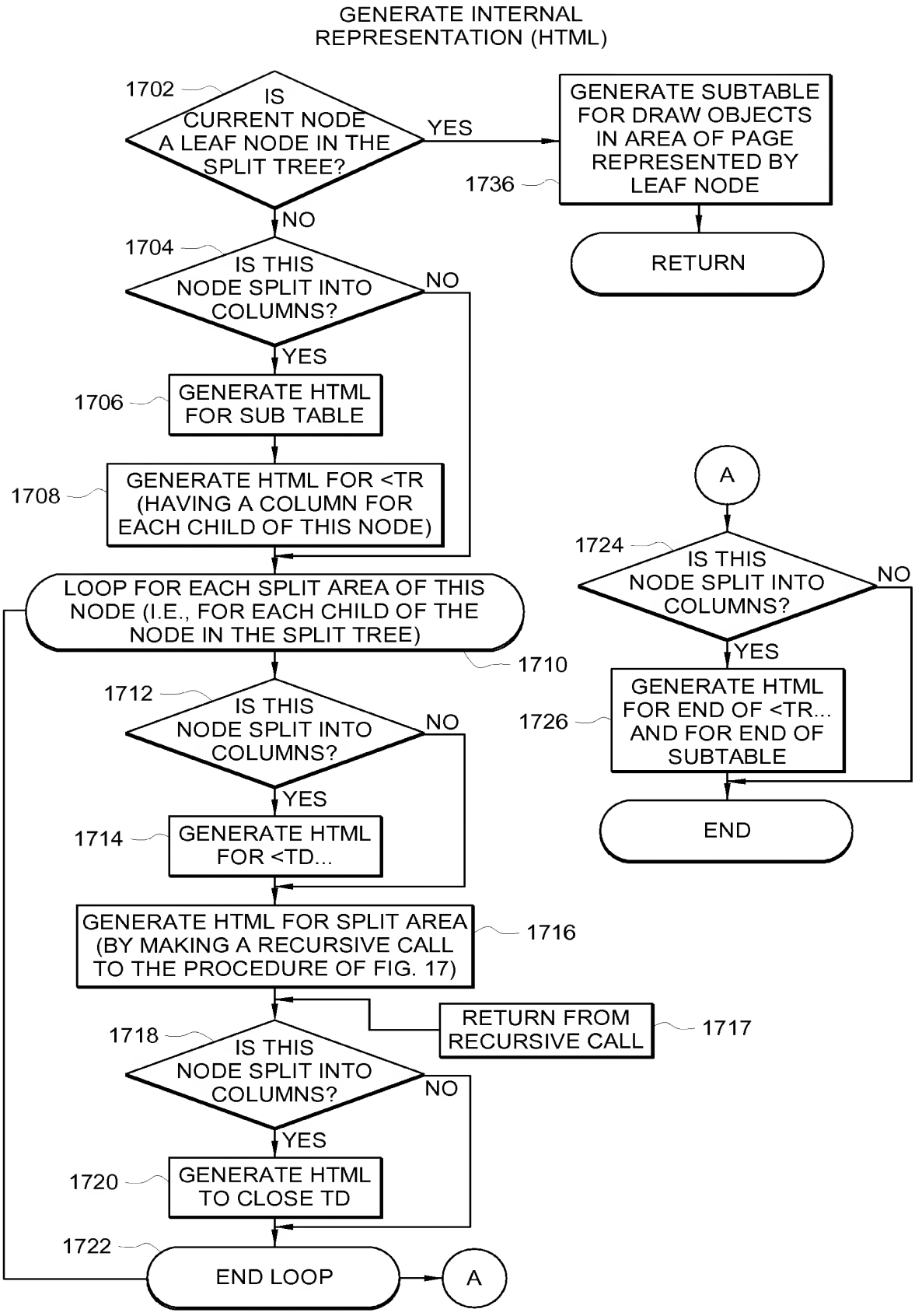

GENERATE INTERNAL REPRESENTATION (HTML)
1702
IS CURRENT NODE A LEAF NODE IN THE SPLIT TREE?
YES
GENERATE SUBTABLE FOR DRAW OBJECTS IN AREA OF PAGE REPRESENTED BY LEAF NODE
1736
RETURN
NO
1704
IS THIS NODE SPLIT INTO COLUMNS?
NO
YES
1706
GENERATE HTML FOR SUB TABLE
1708
GENERATE HTML FOR <TR (HAVING A COLUMN FOR EACH CHILD OF THIS NODE)
LOOP FOR EACH SPLIT AREA OF THIS NODE (I.E., FOR EACH CHILD OF THE NODE IN THE SPLIT TREE)
1710
1712
IS THIS NODE SPLIT INTO COLUMNS?
NO
YES
1714
GENERATE HTML FOR <TD...
GENERATE HTML FOR SPLIT AREA (BY MAKING A RECURSIVE CALL TO THE PROCEDURE OF FIG. 17)
1716
RETURN FROM RECURSIVE CALL
1717
1718
IS THIS NODE SPLIT INTO COLUMNS?
NO
YES
1720
GENERATE HTML TO CLOSE TD
1722
END LOOP
A
A
1724
IS THIS NODE SPLIT INTO COLUMNS?
NO
YES
1726
GENERATE HTML FOR END OF <TR... AND FOR END OF SUBTABLE
END

FIG. 18

CREATE INITIAL HTML

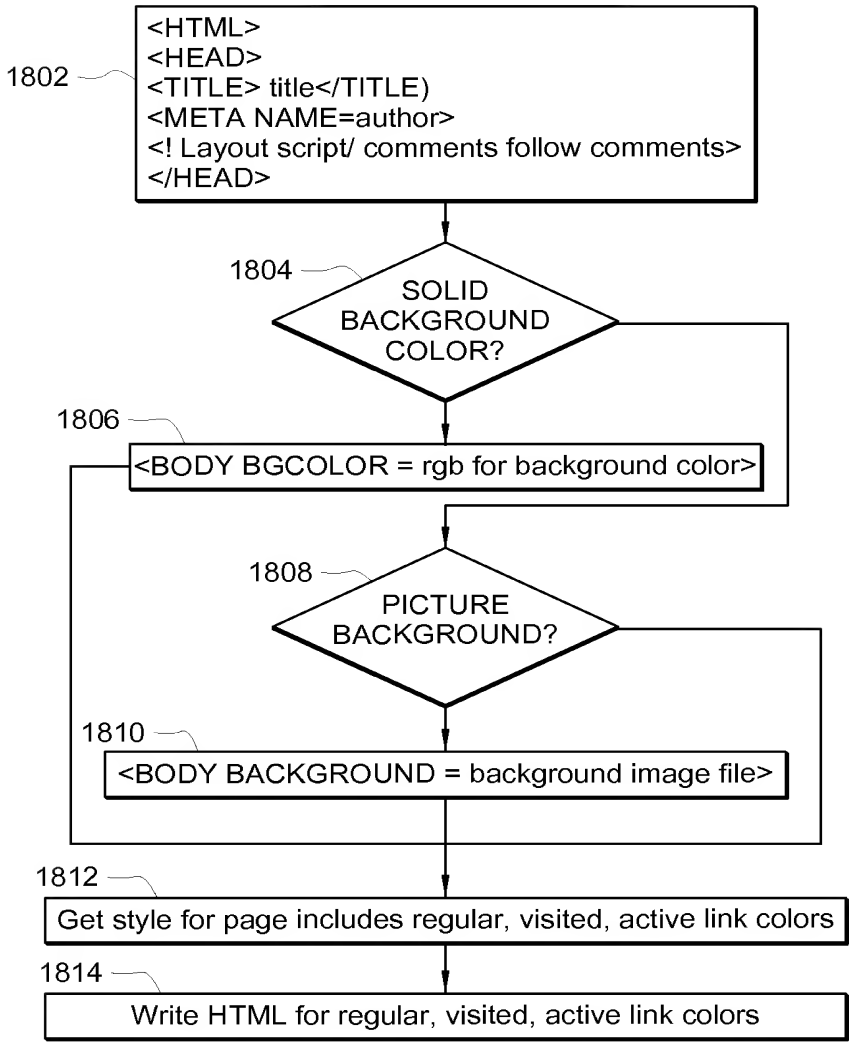


FIG. 19

BUILD HTML SUBTABLE

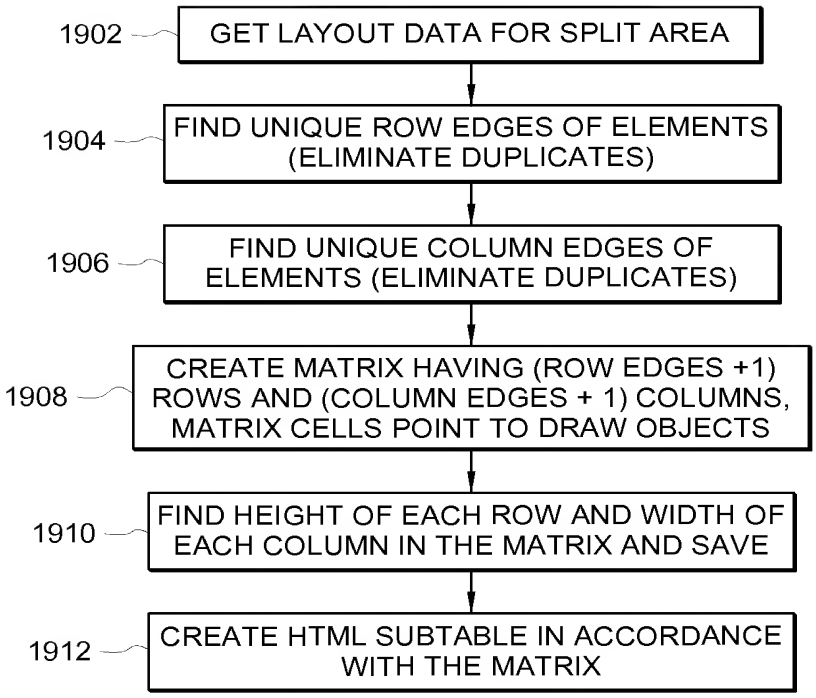


FIG. 20

GENERATION OF HTML FOR AN HTML SUBTABLE IN ACCORDANCE WITH MATRIX

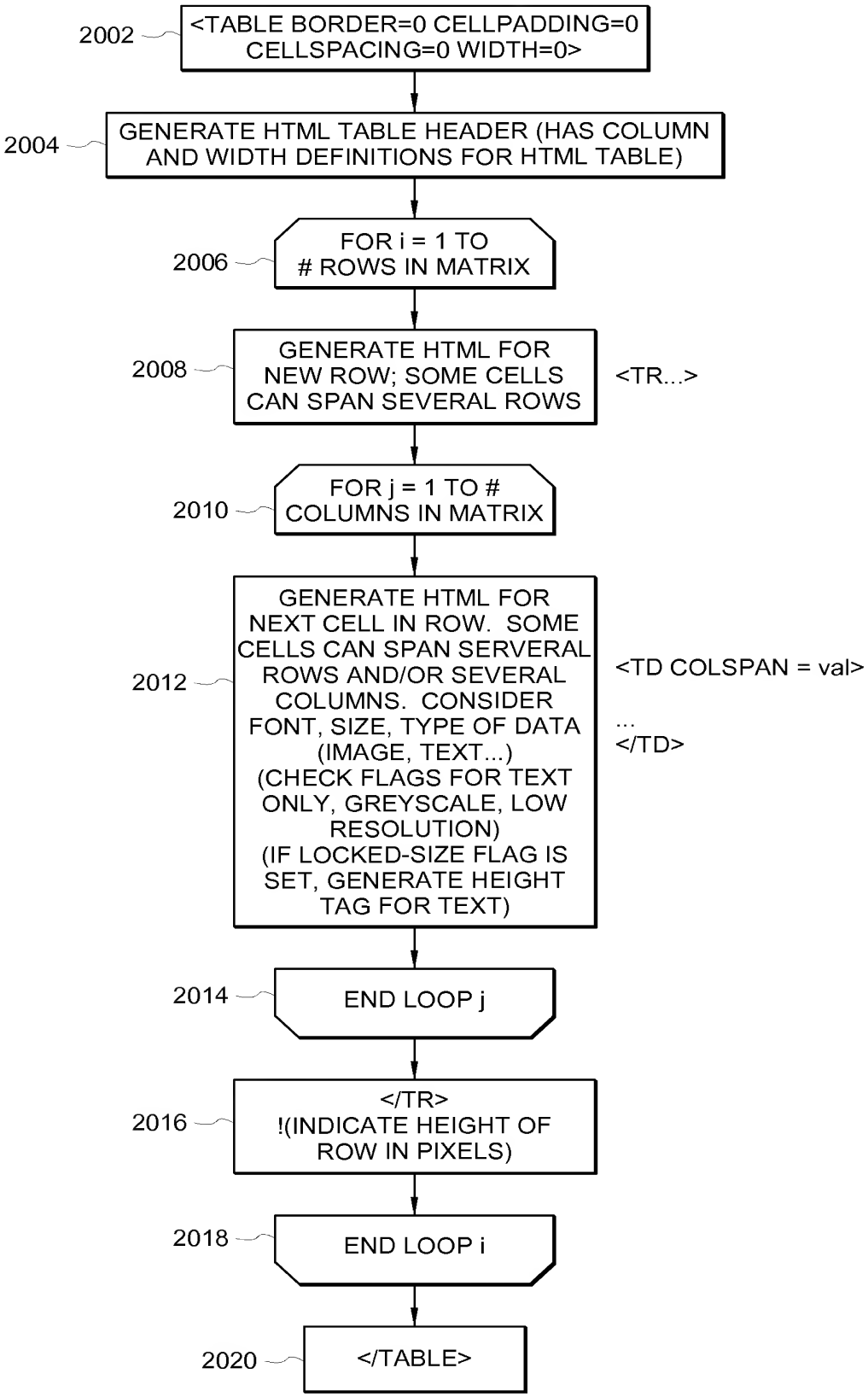


FIG. 21

GENERATE FINAL HTML

2102

```
<p> <A HREF = netobjects homepage URL>
      <IMG SRC=link image\ BORDER=0>
      </A>
</P>
</BODY>
</HTML>
```

FIG. 22

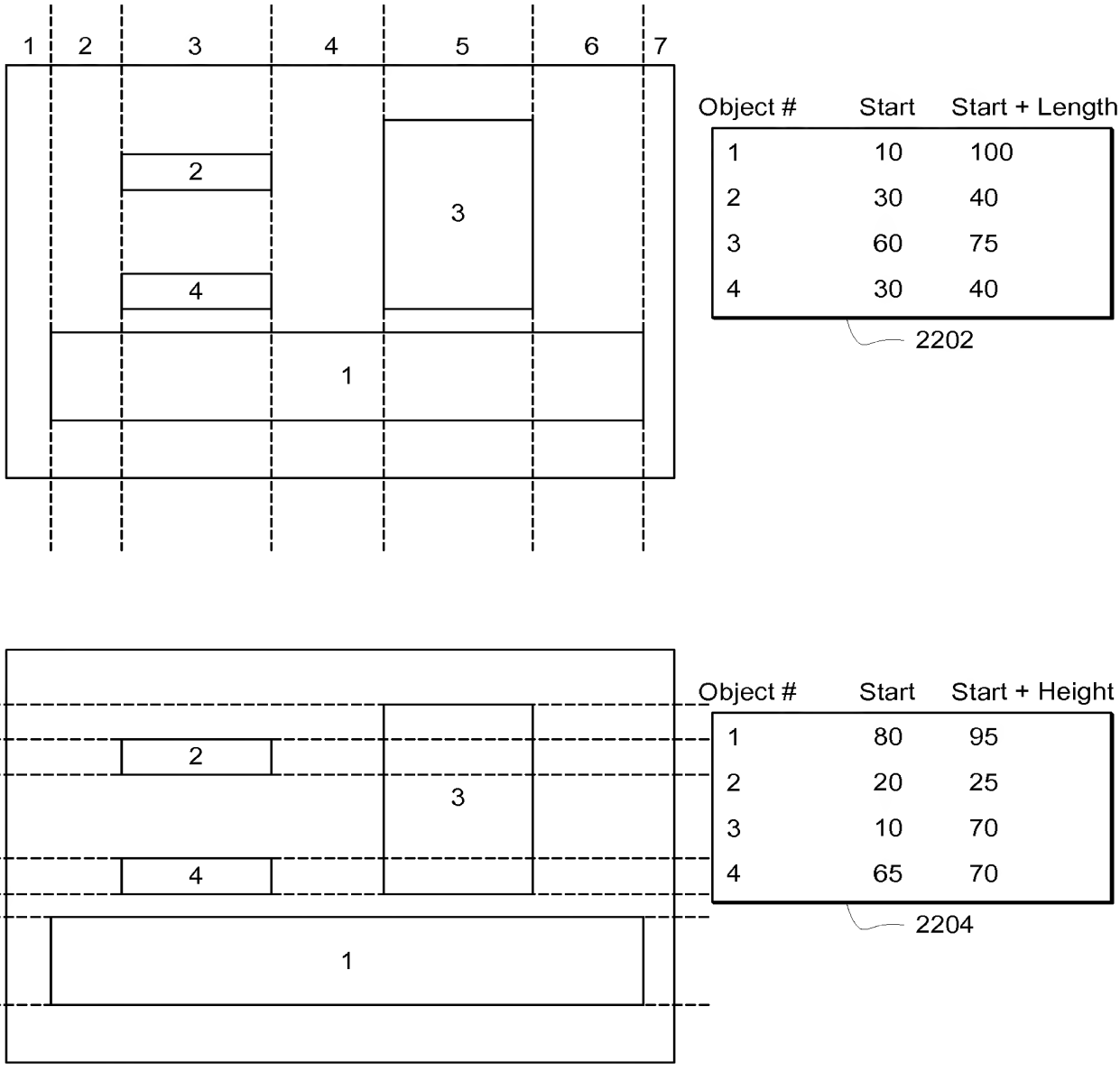

1
2
3
4
5
6
7
2
3
4
1
Object # Start Start + Length
1 10 100
2 30 40
3 60 75
4 30 40
2202
1
2
3
4
5
6
7
8
2
3
4
1
Object # Start Start + Height
1 80 95
2 20 25
3 10 70
4 65 70
2204

FIG. 23

Object #	Start	Start + Length
1	10	100
2	30	40
3	60	75
4	30	40

SORT AND REMOVE DUPLICATES

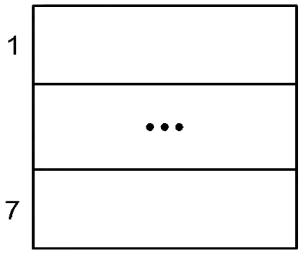
COLUMN EDGES

10
30
40
60
75
100

6 COLUMN EDGES

DETERMINE WIDTH OF EACH COLUMN

COLUMN WIDTHS



Object #	Start	Start + Height
1	80	95
2	20	25
3	10	70
4	65	70

SORT AND REMOVE DUPLICATES

ROW EDGES

10
20
25
65
70
80
95

7 ROW EDGES

DETERMINE HEIGHT OF EACH ROW

ROW HEIGHTS

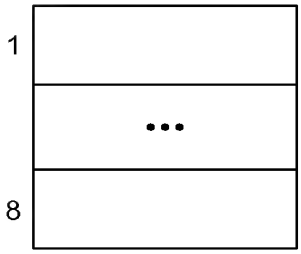


FIG. 24

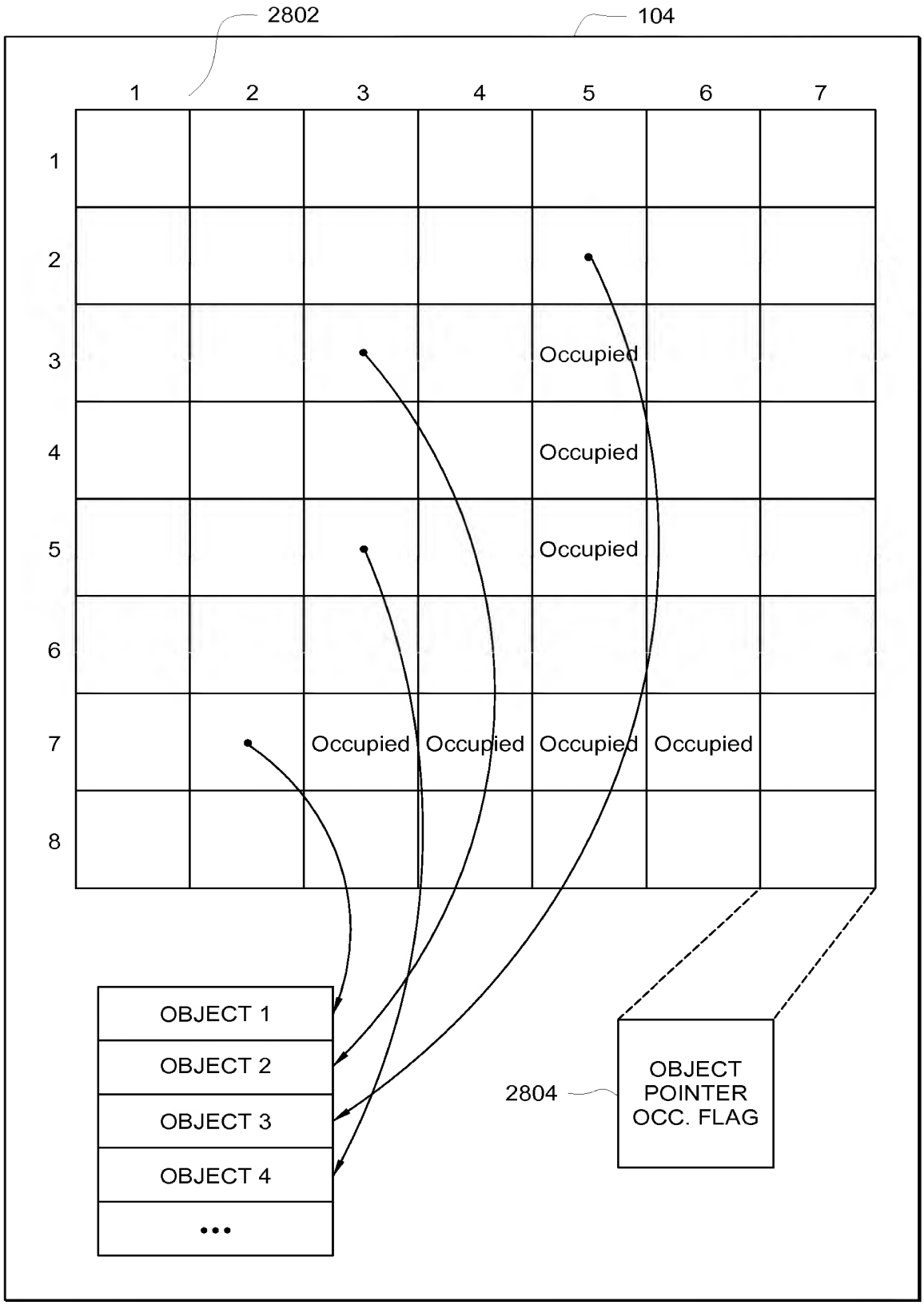
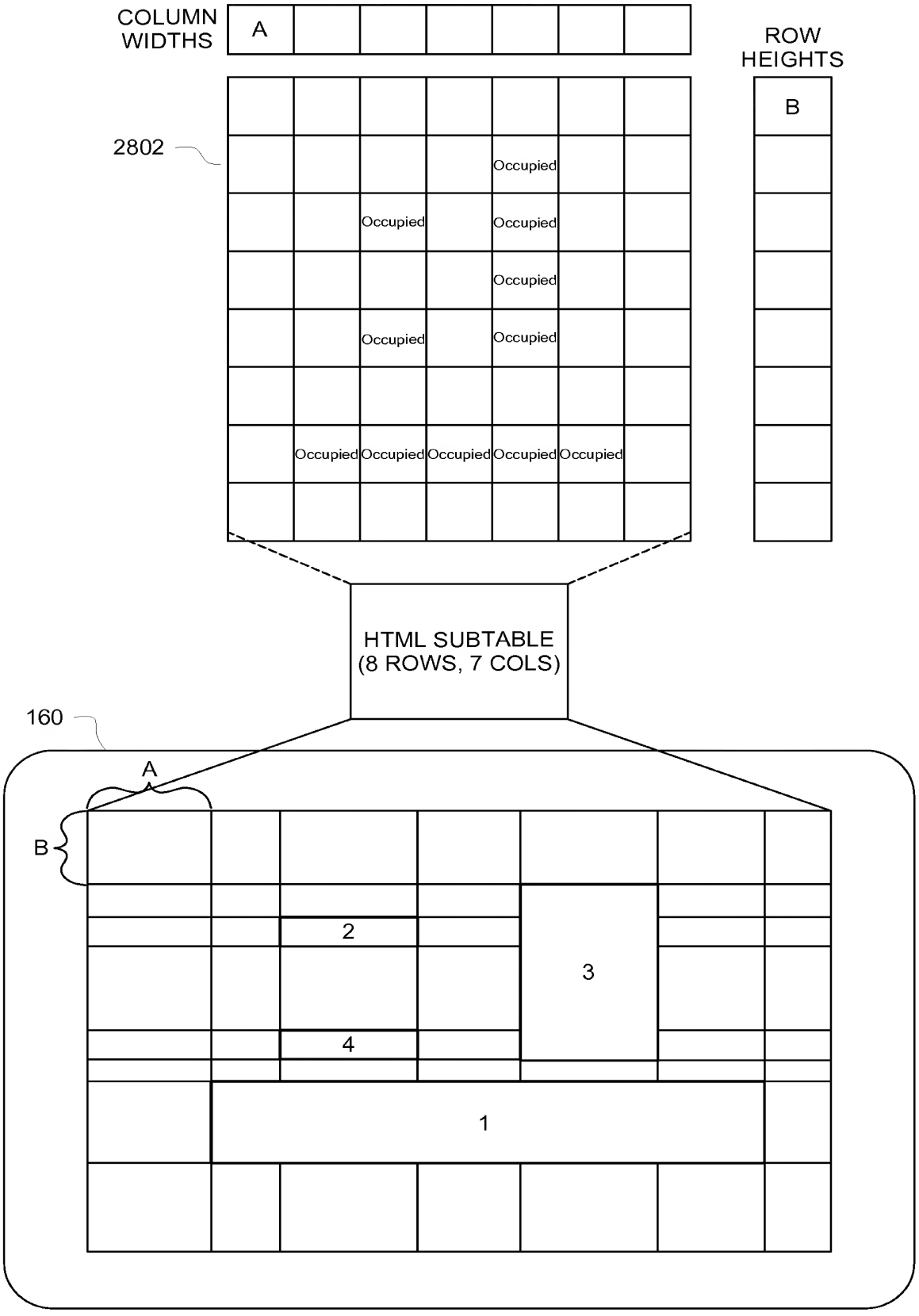

2802
104
1
2
3
4
5
6
7
1
2
3
4
5
6
7
8
Occupied
Occupied
Occupied
Occupied
Occupied
Occupied
Occupied
OBJECT 1
OBJECT 2
OBJECT 3
OBJECT 4
...
2804
OBJECT POINTER OCC. FLAG

FIG. 25


COLUMN WIDTHS
A
ROW HEIGHTS
B
2802
Occupied
HTML SUBTABLE
(8 ROWS, 7 COLS)
160
A
B
2
3
4
1